Automating the News : How Algorithms are Rewriting the Media

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BOOK REVIEW

Automating the news: How algorithms are rewriting the media, by Nicholas Diakopoulos, Harvard University Press, 2019. 322 pp. (hard cover), ISBN 9780674976986.

Few persons are better equipped than Nick Diakopoulos to write a book about the exciting algorithmic development in newsrooms that transforms the work of journalists in so many ways, some negative, and some positive and often unexpected. As a Professor at Northwestern University, Diakopoulos is pioneering new forms of journalism in his Computational Journalism Lab, which is augmenting journalism with computational thinking. Computational journalism is defined by the author as "the study of information production using algorithms operating within the value system of journalism" (p. 40). Originally a computer scientist, Diakopoulos has moved into journalism studies and collaborates with media companies such as the Washington Post. He possesses a deep knowledge of the news industry, which he combines with an interest for complex structures as well as specific technical details. Diakopoulos has the intellectual capacity and knowledge as well as curiosity and integrity to critically assess how algorithms are affecting the operations of news media. In this book, he refrains from sweeping generalizations of the future of artificial intelligence (AI) that are so common in both in industry and research.

What do algorithms do? According to the definition used in the book, "an algorithm is a series of steps that that is undertaken in order to solve a particular problem or to accomplish a defined outcome" (p. 16). The book focuses on how news automation, natural language technology (NLP/NLG/NLU), is applied in a social context. It starts with the introduction of a well-documented case: automated news writing at the Associated Press in New York, that initially in 2014 served customers with financial reports of listed companies. The cooperation

between AP and software provider Automated Insights is something of the ideal case as it convincingly exemplifies in what ways news automation is useful.

Diakopoulos early on tells the reader that he wants to shatter the "ebullient mysticism" (p. 3) or hype that surrounds algorithmic affordances but also the doom and gloom, the widespread fear that robots will take the jobs. Diakopoulos provides guidance of the limitations and opportunities of algorithms in the newsroom and present three very convincing conclusions; 1) the embeddedness of human values in the design and use of these technologies; 2) the change in journalistic practices that are needed, and; 3) how the use of algorithms can enhance a more sustainable news production (p. 4).

In chapter 1, Diakopoulos briefly develops the concept of hybrid journalism, a form of human-machine interaction in the newsroom where human cognition is needed to compensate for the limitations of algorithms. He presents his ideas more in detail in the concluding chapter. However, the author does not engage with Chadwick (2013), who in his conceptualization of a hybrid media system underlines that technological development creates the need for new ways of understanding communication.

In chapter 2, Diakopoulos analyzes data-mining and machine-learning use cases in news organizations, from story finding to different forms of verification and evaluation; for instance, of news sources. It is becoming quite a task to monitor editorial tech development. During the Covid-19 crisis, there has been a growth in AI applications for newsrooms that have helped journalists to report on the pandemic more effectively. Media companies such as Times/Times Sunday or Swedish Aftonbladet use text automation to outpace competitors with its covid-19 news coverage; BBC launched a pop-up Corona Bot service to answer questions on Covid-19 related changes; Bloomberg used a news detection AI tool to sift through sources and catch breaking news and so forth.

In chapter 3, he offers a closer look at news generation cases, including an exploration of AP's collaboration with Automated Insights. News automation is a field where the human-machine interaction is quite easy to study as tasks are distinctly divided between journalists, who write text templates and plan news angles, and software, which is fed these text templates and data to churn out thousands of stories. Diakopoulos shows that this work, feeding the machine with carefully selected data, creates new opportunities for skilled journalists. Chapter 4 focus on interactive forms of automated journalism, newsbots that users can engage with to receive information about topics they care about.

Many news organizations have surrendered to Facebook, Apple and Google and outsourced the distribution of content to digital platforms. In chapter 5, Diakopoulos dissects this trend and points to a more positive development, the innovation of a "journalistic newsfeed" that reflects the cultural values of the newsroom and not optimization for the attention economy on social media. Then the author moves on in chapter 6 to a project he has been working on for several years, algorithmic accountability reporting or journalistic scrutiny of automated decision-making systems in the digital society. This is an emerging fusion of investigative journalism and data journalism, a recoupling of two journalistic fields that drifted apart when computer-assisted reporting (CAR) was relabeled as data journalism.

Overall, Diakopoulos distances himself from the term artificial intelligence (AI) and prefers a more precise approach, deconstructing the parts of technical and human systems. It is a good strategy as there still is no consensus on this six decades old silicon dream. Journalism scholars and journalists alike tend to think of AI as a broad and vague concept. Reporting on AI often focus on industry announcements. As an example, the most common news source for AI in British news media has been the Silicon Valley entrepreneur Elon Musk (Brennen, Howard, & Nielsen, 2018). Among journalists and media managers, there is frustration about the lack of clarity around key definitions in AI, for instance the connection

between intelligence and artificial. The present hype around AI does not make the conversation easier: is there material substance or is this just the new shiny trend of the moment?

Algorithms entered the news business decades ago with the shift from analogue to digital news production. They are embedded in tools ranging from spell check to digital photography and Photoshop areconceived as benevolent, freeing reporters from boring and tedious tasks. However, in today's discussion algorithms are framed as artificial intelligence, something unknown that will transform, or rather destroy newsroom jobs. This perceived existential threat is actually a false dichotomy between "autonomy" and "automation". Spell check is not a risk to autonomy even though it did sometimes hurts personal pride.

Moreover, early on researchers also coined the sticky metaphor "robot journalism" that will replace journalists. It is here to stay despite the obvious conclusion that the metaphor is flawed and damaging (Lindén & Dierickx, 2019). Fortunately, you will not find any references to robots in this book. As Diakopoulos importantly notes, "the story is as much about the people designing and working with automation as it is about the computational algorithms themselves […] algorithms are not going to replace journalists wholesale" (p. 1). This human-machine interaction (HMI) perspective is one of the major themes of the book.

The book ends with on an optimistic note and a call for interdisciplinary research that draws together academia, industry and civil society in an effort to develop algorithmic and automated solutions that helps strengthen media in society. This is a pertinent issue as news media and journalists, at least in the United States, have largely succumbed to the belief that tech giants will lead them through the next years of technology development. This capitulation is a dangerous path. Diakopoulos details the design of hybrid systems combining AI and domain skills of journalists, algorithms and human autonomy complementing each other. Not just academics, but also journalists and media managers all over the world need to

read Diakopoulos' book if they want to understand how new technology can augment the newsroom and make editorial processes more efficient while keeping a strong focus on an output that serves the audience best.

References

Brennen, J. S., Howard, P. N., & Nielsen, R. K. (2018). An industry-led debate: How UK media cover artificial intelligence. Reuters Institute for the Study of Journalism Fact Sheet.

Chadwick, A. (2013). The hybrid media system: Politics and power. Oxford: Oxford University Press.

Lindén, C-G. & Dierickx, L. (2019). Robot journalism: The damage done by a metaphor. Unmediated: Journal of Politics and Communication, 2, 152-155.

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